## **EAST Search History**

## EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	9802	((438/580) or (438/575) or (438/396) or (438/239) or (438/259) or (438/240) or (438/778) or (438/781) or (438/686)).OCLS.	US-PGPUB; USPAT	OR	OFF	2009/11/30 22:03
L2	126	1 and ((ruthenium or "Ru") with ("ALD" or (atomic adj layer adj deposition)))	US-PCPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/30 22:04
L3	38	@ad <= "20040316" and 2	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/30 22:05
L5	10	3 and ((ruthenium or "Ru") with seed \$3)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/30 22:05
L6	10981	((257/E21.17) or (257/E21.011) or (257/E27.088) or (257/296) or (257/301-306)). CCLS.	US-PGPUB; USPAT	OR	OFF	2009/11/30 22:06
L7	123	6 and ((ruthenium or "Ru") with ("ALD" or (atomic adj layer adj deposition)))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/30 22:06

L8	37	@ad <= "20040316" and 7	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	MOR	ON	2009/11/30 22:06
L9	8	8 and ((ruthenium or "Ru") with seed \$3)	US-PCPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/30 22:07
S1	264	(ruthenium or "Ru") with (pattern\$3 or seed) with (sputtering or "ALD")	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/04/07 21:15
S2	1727	(ruthenium or "Ru") with (electroplating or "CVD")	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/04/07 21:16
S4	3526	(ruthenium or "Fu") with (pattern\$3 or seed)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/04/07 21:19
<b>S</b> 5	2	S1 and S2 and S3	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/04/07 21:19
S6	1703	(ruthenium or "Ru") with ("CVD" or (chemical adj vapor adj deposition))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/04/07 21:42
S7	139	S1 and S4 and S6	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/04/07 21:43

S8	83	@ad <= "20040316" and S7	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	MOR	ON	2008/04/07 21:45
S9	68	(ruthenium or "Ru") with (pattern\$3 or seed) with ("ALD" or (atomic adj layer adj deposition))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/04/07 22:58
S10	52	S6 and S9 and S4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2008/04/07 22:58
S11	10	@ad <= "20040316" and S10	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/04/07 22:58
S12	47	(ruthenium or "Ru") with (seed adj layer) with ("ALD" or (atomic adj layer adj deposition))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/04/09 21:59
S13	1768	(ruthenium or "Ru") with ("CVD" or (chemical adj vapor adj deposition) or "MOCVD" or "PECVD")	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/04/09 22:00
S14	34	S12 and S13	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/04/09 22:01
S15	6	@ad <= "20040316" and S14	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM TDB	OR	ON	2008/04/09 22:01

S16	98	((seed adj layer) with ("ALD" or (atomic adj layer adj deposition))) same (ruthenium or "Ru")	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	MOR	ON	2008/04/09 22:05
S17	44	S16 and S13	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/04/09 22:05
S18	8	@ad <= "20040316" and S17	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/04/09 22:05
S19	1499	(ruthenium or "Ru") with (seed adj layer)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/04/09 22:14
S20	817	(seed adj layer) with ("ALD" or (atomic adj layer adj deposition))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/04/09 22:14
S21	131	S19 and S20	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/04/09 22:14
S22	65	S13 and S21	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/04/09 22:15
<b>S2</b> 3	14	@ad <= "20040316" and S22	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM TDB	OR	ON	2008/04/09 22:15

S24	95	(ruthenium or "Ru") with ((seed adj layer) or (thin adj film)) with ("ALD" or (atomic adj layer adj deposition))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR Temmentum	ON	2008/04/09 22:25
S25	66	S13 and S24	US-PCPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2008/04/09 22:26
S26	18	@ad <= "20040316" and \$25	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/04/09 22:26
S27	771	(ruthenium or "Ru") with ("ALD" or (atomic adj layer adj deposition))	US-PCPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/29 00:31
S28	2108	(ruthenium or "Ru") with ((chemical adj vapor adj deposition) or "CVD")	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/29 00:34
<b>S2</b> 9	467	\$27 and \$28	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/29 00:34
S30	101	@ad <= "20040316" and \$29	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/29 00:36
S31	84	S30 and (capacitor or (lower adj electrode) or (upper adj electrode))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/29 00:37
S32	2	10/801,208	US-PGPUB; USPAT	OR	OFF	2009/09/29 00:38

S33	7150	(ruthenium or "Ru") with (oxygen or oxygen-containing)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	MOR	ON	2009/09/29 02:04
S34	239	S27 and S33	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/29 02:04
<b>S</b> 35	10505	(ruthenium or "Ru") with (hydrogen or hydrogen- containing)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/29 02:04
S36	93	S34 and S35	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/29 02:05
<b>S</b> 37	15	@ad <= "20040316" and \$36	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/29 02:05
S38	6	S37 not S31	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/29 02:05
<b>S</b> 39	56	(kwang-hee near Lee).in.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/29 02:08
S40	4	S39 and ((ruthenium or "Ru") with (hydrogen or hydrogen- containing))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/29 02:08

S41	4	S40 and ((ruthenium or "Ru") with (oxygen or oxygen- containing))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR		2009/09/29 02:09
S42	3	@ad <= "20040316" and S41	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/29 02:09
S43	123	(cha-young near yoo).in.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/29 02:11
S44	10	S43 and ((ruthenium or "Ru") with (hydrogen or hydrogen- containing))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/29 02:11
S45	10	S44 and ((ruthenium or "Ru") with (oxygen or oxygen- containing))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/29 02:11
S46	8	@ad <= "20040316" and S45	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/29 02:11
S47	5	S46 not S42	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/29 02:11
S48	25	(han-jin near Lim). in.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/29 02:15

S49	4	S48 and ((ruthenium or "Fu") with (hydrogen or inydrogen- containing))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	MOR	ON	2009/09/29 02:16
S50	4	S49 and ((ruthenium or "Ru") with (oxygen or oxygen- containing))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/29 02:16
S51	3	@ad <= "20040316" and S50	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/29 02:16
S52	3	\$51 not \$47	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/29 02:16
S53	29	(suk-jin near chung). in.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/29 02:17
S54	5	S53 and ((ruthenium or "Ru") with (hydrogen or hydrogen- containing))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/29 02:17
S65	5	S54 and ((ruthenium or "Ru") with (oxygen or oxygen- containing))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/29 02:17
S56	3	@ad <= "20040316" and S55	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/29 02:17

S57	2	S39 and ((ruthenium or "Ru") with ("ALD" or (atomic adj layer adj deposition)))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/29 02:18
S58	1	@ad <= "20040316" and S57	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/29 02:18
S59	5	S29 and S43	US-PGPUB; USPAT	OR	OFF	2009/09/29 02:19
S60	5	@ad <= "20040316" and S59	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/29 02:19
S61	1	S48 and S29	US-PGPUB; USPAT	OR	OFF	2009/09/29 02:20
S62	1	S48 and S29	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2009/09/29 02:20
S63	1	@ad <= "20040316" and S62	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/29 02:20
S64	1	S53 and S29	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2009/09/29 02:20
S65	1	@ad <= "20040316" and S64	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/29 02:20

S66	9512	[((438/239) or (438/243-244) or (438/253) or (438/ FOFH26) or (438/680) or (438/686) or (438/396) or (438/399) or (438/375).CCLS.	US-PGPUB; USPAT	OR	OFF	2009/09/29 02:42
S67	100	S66 and ((ruthenium or "Ru") with (hydrogen or hydrogen- containing))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/29 02:43
S68	74	S67 and ((ruthenium or "Ru") with (oxygen or oxygen- containing))	US-PCPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/29 02:45
S69	39	@ad <= "20040316" and S68	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/29 02:45
S70	102	S66 and S29	US-PGPUB; USPAT	OR	OFF	2009/09/29 02:53
S71	80	S70 and (capacitor or (lower adj electrode) or (upper adj electrode))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/29 02:54
S72	33	@ad <= "20040316" and S71	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/29 02:54
S73	30	S72 not 969	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OZ	2009/09/29 02:54

S74	9802	((257/301) or (257/774) or (257/296) or (257/306)).CCLS.	US-PGPUB; USPAT	OR	OFF	2009/09/29 03:08
S75	28	S74 and ((ruthenium or "Ru") with (hydrogen or hydrogen- containing))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/29 03:10
S76	20	S75 and ((ruthenium or "Ru") with (oxygen or oxygen- containing))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/29 03:10
S77	13	@ad <= "20040316" and S76	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/29 03:10
S78	40	S74 and S29	US-PGPUB; USPAT	OR	ON	2009/09/29 03:11
S79	34	S78 and (capacitor or (lower adj electrode) or (upper adj electrode))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/29 03:11
S80	14	@ad <= "20040316" and S79	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/29 03:11
\$81	2	((ruthenium or "Ru") with ((chemical adj vapor adj deposition) or "CVD") and (ruthenium or "Ru") with ("ALD" or (atomic adj layer adj deposition)) and (lower adj electrode) and (upper adj electrode) and (dielectricadj layer)).clm.	US-PGPUB; USPAT; USPOR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/29

S82	1	@ad <= "20040316" and S81	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/29 03:13
S83	3	(((ruthenium or "Ru") with (hydrogen or hydrogen-containing)) and ((ruthenium or "Ru") with (oxygen or oxygen-containing)) and (dielectric adj layer) and pattern\$3 and (upper adj electrode) and (lower adj electrode)).clm.	US-PGPUB; USPAT; USOCR; EPO; JPO; DETWENT; IBM_TDB	OR	ON	2009/09/29 03:14
S84	1	@ad <= "20040316" and S83	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/29 03:14
S85	83	seed\$3 with (ruthenium or "Ru") with ("ALD" or (atomic adj layer adj deposition))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/30 19:22
S86	87	capacitor same (seed \$3 with (ruthenium or "Ru"))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/30 19:23
S87	7	\$85 and \$86	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/30 19:23
S88	2	@ad <= "20040316" and \$87	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/30 19:23

S89	26	S85 and capacitor	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/30 19:23
S90	1	@ad <= "20030327" and S89	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/30 19:24
S91	2	@ad <= "20040316" and S89	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/30 19:24
S92	1	("6992022").PN.	US-PGPUB; USPAT	OR	OFF	2009/11/30 19:27
S93	799	(ruthenium or "Ru") with ("ALD" or (atomic adj layer adj deposition))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/30 19:31
S94	5777	capacitor same (ruthenium or "Ru")	US-PCPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/30 19:32
S95	261	S93 and S94	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/30 19:32
S96	68	@ad <= "20030327" and \$95	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/30 19:32
S97	1229	seed\$3 with ("ALD" or (atomic adj layer adj deposition))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/30 19:46

S98	13	S96 and S97	US-PGPUB; USPAT; USCOR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/30 19:46
S99	1	("7259058").PN.	US-PGPUB; USPAT	OR	OFF	2009/11/30 20:21

## 11/30/09 10:23:34 PM

C:\ Documents and Settings\ ttran13\ My Documents\ EAST\ Workspaces\ 10801208.wsp